

Abstract

A railroad collision avoidance system and method are disclosed that utilize impulse radio technology to effectively warn a person when there is a locomotive in their vicinity. In one embodiment, the railroad collision avoidance system includes a transmitting impulse radio unit coupled to a locomotive and a receiving impulse radio unit coupled to a vehicle. The transmitting impulse radio unit operates to transmit an impulse radio signal towards the vehicle when the locomotive is a predetermined distance from a railroad crossing. Upon receiving the impulse radio signal, the receiving impulse radio unit makes sure the person operating the vehicle is informed about the potentially dangerous situation. Several embodiments of the railroad collision avoidance system and method are disclosed all of which operate to warn a person when there is a locomotive in their vicinity.